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Claims:

- 5 1. A cellular method for identifying substances capable of influencing the activity of a target molecule, with the cells to be analyzed carrying at least one reporter gene and the activity of that target molecule having an effect on cell propagation, which comprises the steps:
- 10 a) contacting at least one cell with the substance to be tested,
b) detecting cell propagation,
c) detecting the activity of the reporter gene product.
2. The method as claimed in claim 1, wherein the activity of the target molecule has
15 an effect on the activity, preferably the expression, of the reporter gene product.
3. The method as claimed in claim 1, wherein the target molecule is a heterologous molecule, preferably a heterologous oligonucleotide, polynucleotide, nucleic acid, polypeptide, protein or protein fragment.
- 20 4. The method as claimed in claim 1, wherein the reporter gene product is an enzyme whose activity is detectable on the basis of conversion of a substrate.
5. The method as claimed in claim 4, wherein the substrate is added with a delay
25 after addition of the substance to be analyzed.
6. The method as claimed in claim 5, wherein the time interval between the addition of the substance to be analyzed and that of the substrate corresponds to the duration of the cell used completing at least one cell cycle, preferably from 2 to 24 cell cycles.

7. The method as claimed in claim 1, wherein the activity of the reporter gene product is detected by way of disrupting the cell, preferably by adding the substrate together with a substance which permeabilizes or destroys the cell wall.

5 8. The method as claimed in any of the preceding claims, wherein the target molecule itself exerts an influence on cell propagation.

9. The method as claimed in any of the preceding claims, wherein the target molecule exerts the influence on cell propagation by interposition of a molecule which
10 directly influences said propagation.

10. The method as claimed in claim 9, wherein the target molecule exerts its action on cell propagation by interaction with a chimeric molecule.

15 11. The method as claimed in any of the preceding claims, wherein the cells are yeast cells, preferably from the strain *S. cerevisiae*.

12. The method as claimed in any of claims 2 to 11, wherein, in one approach, cells are screened simultaneously with different target molecules.